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EXAMINER

SASINOWSKI, ANDREW

ART UNIT

PAPER NUMBER

2627

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|---|--|--|
| Office Action Summary | Application No. 10/553,233 | Applicant(s) KIM, JOUNG-HOON | |
| | Examiner ANDREW J. SASINOWSKI | Art Unit 2627 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 – 3, 6 – 17, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Salto et. al. [US 5,513,157]

Regarding claim 1, Salto teaches:

- A method of opening a tray of an optical disc changer that includes a plurality of disc mounting recesses, on each of which a disc may be loaded, **[abstract, fig. 14]** the method comprising:
- moving two successive, empty disc mounting recesses to an exposure position so that discs can be simultaneously mounted on the recesses when the tray is opened if a tray open command to mount two discs simultaneously is input by a user; **[fig. 14, note that the exposed recesses are successive and empty and can be loaded simultaneously]**
- and opening the tray. **[fig. 14]**

Regarding claim 2, Salto teaches:

- The method of claim 1, further comprising:

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- searching for two successive, empty disc mounting recesses if the tray open command is applied **[this method element is inherently accomplished with the 'skip' function, see col. 5, lines 5 – 9];**
- and selecting the two successive, empty disc mounting recesses to be exposed when empty disc mounting recesses are found **[this method element is inherently accomplished with the 'skip' function, see col. 5, lines 5 – 9];**

Regarding claim 3, Salto teaches:

- The method of claim 2,
- further comprising selecting two successive disc mounting recesses, which are not both empty, to be exposed if two successive, empty disc mounting recesses are not found **[col. 5, lines 5 – 9, note this will inherently happen if the condition recited in claim 2 isn't met].**

Regarding claim 6, Salto teaches:

- An optical disc changer tray opening method for multiple discs **[fig. 1],** comprising:
- inputting a tray open command to initiate an opening of a tray of the disc changer, the tray including multiple disc mounting recesses **[abstract];**
- determining whether the tray open command initiates a multiple disc mounting mode **[fig. 14 note multiple disc mounting mode is determined by whether or not the user uses the skip button to rotate the tray in order to load more than one disc];**

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- and opening the tray to expose multiple successive, empty disc mounting recesses if the command initiates the multiple disc mounting mode **[fig. 14, note that the exposed recesses are successive and empty and can be loaded simultaneously]**

Regarding claim 7, Salto teaches:

- The method according to claim 6,
- wherein the opening comprises rotating the tray to move the multiple successive, empty disc mounting recesses to an exposure position **[fig. 14, note that the exposed recesses are successive and empty]**

Regarding claim 8, Salto teaches:

- The method according to claim 6,
- further comprising searching for the multiple successive, empty disc mounting recesses if the command initiates the multiple disc mounting mode **[this method element is inherently accomplished with the 'skip' function, see col. 5, lines 5 – 9]**

Regarding claim 9, Salto teaches:

- The method according to claim 8, wherein, when the multiple successive, empty disc mounting recesses are found, the method further comprises:
- selecting the multiple successive, empty disc mounting recesses to be exposed **[this method element is inherently accomplished with the 'skip' function, see col. 5, lines 5 – 9];**

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- and recording numbers of the selected multiple successive, empty disc mounting recesses **[accomplished in combination with the optical sensor 26 and the address sensor 27, see col. 7, lines 9 – 29].**

Regarding claim 10, Salto teaches:

- The method according to claim 9, wherein the method further comprises moving the selected multiple successive, empty disc mounting recesses to be exposed to a loading position **[this method element is inherently accomplished with the ‘skip’ function, see col. 5, lines 5 – 9].**

Regarding claim 11, Salto teaches:

- The method according to claim 10,
- wherein the moving comprises rotating a roulette wheel, in which the disc mounting recesses are defined, so that a center between the selected multiple successive, empty disc mounting recesses to be exposed is located at a center portion of an area to be exposed **[fig. 15].**

Regarding claim 12, Salto teaches:

- The method according to claim 11, further comprising:
- detecting numbers of the disc mounting recesses during the rotating of the roulette **[accomplished in combination with the optical sensor 26 and the address sensor 27, see col. 7, lines 9 – 29];** and
- determining an amount of rotation that has occurred based on the detection of the numbers of the disc mounting recesses **[accomplished in**

combination with the optical sensor 26 and the address sensor 27, see col. 7, lines 9 – 29, also see col. 2, lines 34 – 46].

Regarding claim 13, Salto teaches:

- The method according to claim 6,
- wherein if the multiple successive, empty disc mounting recesses are not found, but two successive disc mounting recesses to be exposed are found, the method further comprises:
- selecting the two successive disc mounting recesses to be exposed; and recording numbers of the recesses **[this method element is inherently accomplished with the ‘skip’ function when disc mounting recesses are not found, see col. 5, lines 5 – 9, also note that recess number are recorded combination with the optical sensor 26 and the address sensor 27, see col. 7, lines 9 – 29, also see col. 2, lines 34 – 46].**

Regarding claim 14, Salto teaches:

- The method according to claim 6,
- wherein the multiple discs include first and second discs and the multiple disc mounting recesses include first and second disc mounting recesses in a roulette that are detected by the optical disc changer and wherein the method further comprises: detecting a condition in which the second disc is mounted on the disc mounting recess that is detected earlier during a rotation of the roulette; and detecting a condition in which the first disc is mounted on the disc mounting recess that is detected later than the earlier

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detected disc mounting recess **[this method element is inherently accomplished with the 'skip' function when empty disc mounting recesses are or are not found, see col. 5, lines 5 – 9, also note that recess number are recorded combination with the optical sensor 26 and the address sensor 27, see col. 7, lines 9 – 29, also see col. 2, lines 34 – 46]..**

Regarding claim 15, Salto teaches:

- An optical disc changer **[abstract]**, comprising:
- a rotatable roulette having a plurality of disc mounting recesses **[fig. 14]**;
- a detection sensor to recognize the disc mounting recesses and determines whether a disc is mounted on each of them **[26]**;
- a microprocessor to control the roulette motor according to tray open/close commands inputted by a user **[col. 10, lines 29 – 38]**,
- wherein when the user inputs a multiple disc mounting command, the microprocessor responsively controls the roulette motor based on information received from the detection sensor so that multiple successive, empty disc mounting recesses are moved to loading/unloading positions **[this method element is inherently accomplished with the 'skip' function, see col. 5, lines 5 – 9]**.

Regarding claim 16, Salto teaches:

- The changer according to claim 15,

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- wherein the detection sensor recognizes the disc mounting recesses **[27]** that pass by the sensor when the roulette rotates, and determines whether discs are mounted on the corresponding disc mounting recesses **[col. 10, lines 29 – 38]**

Regarding claim 17, Salto teaches:

- The changer according to claim 16,
- wherein results of the recognition and detection of the detection sensor is provided to the microprocessor **[col. 2, lines 47 – 59]**.

Regarding claim 19, Salto teaches:

- An optical disc changer tray opening method, comprising:
- inputting a tray open command to initiate an opening of a tray of the disc changer, the tray including multiple disc mounting recesses **[fig. 14]**;
- determining whether the tray open command initiates a multiple disc mounting mode or a single disc mounting mode **[fig. 14 note multiple disc mounting mode is determined by whether or not the user uses the skip button to rotate the tray in order to load more than one disc]**;
- opening the tray to provide access to the disc mounting recesses **[fig. 14]**;
- and exposing multiple successive, empty disc mounting recesses if the command initiates the multiple disc mounting mode **[fig. 14]** or exposing one multiple disc mounting recess if the tray open command initiates a single disc mounting mode **[fig. 13, note that multiple disc mounting**

mode is determined by whether or not the user uses the skip button to rotate the tray in order to load more than one disc].

Regarding claim 20, Salto teaches:

- An optical disc changer tray opening method, comprising:
- inputting a tray open command to initiate an opening of a tray of the disc changer, the tray including multiple disc mounting recesses **[fig. 14]**;
- determining whether the tray open command initiates a multiple disc mounting mode or a single disc mounting mode **[fig. 14 note multiple disc mounting mode is determined by whether or not the user uses the skip button to rotate the tray in order to load more than one disc]**; and
- opening the tray to expose multiple successive, empty disc mounting recesses if the command initiates the multiple disc mounting mode **[fig. 14]** or to expose one multiple disc mounting recess if the tray open command initiates a single disc mounting mode **[fig. 13, note that multiple disc mounting mode is determined by whether or not the user uses the skip button to rotate the tray in order to load more than one disc]**.

3. Claims 21 – 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoshino et. al. [US 5,742,571].

Regarding claim 21, Hoshino teaches:

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- An optical disc changer tray opening method, the method comprising:
- selecting a disc mounting mode selectable between a multiple disc mounting mode and a single disc mounting mode changer **[this method element is inherently accomplished with the 'skip' function, see col. 9, lines 26 – 46]**
- inputting a tray open command to initiate an opening of a tray of a disc, the tray including multiple disc mounting recesses **[fig. 1]**;
- determining whether, on the input of the tray open command, the selected disc mounting mode initiates the multiple disc mounting mode to expose multiple successive, empty disc mounting recesses or the single disc mounting mode **[this method element is inherently accomplished with the 'skip' function, see col. 9, lines 26 – 46]** and
- opening the tray according to the determining the selected disc mounting mode **[fig. 15 and fig. 16]**.

Regarding claim 22, Hoshino teaches:

- The method according to claim 21,
- wherein the selecting the disc mounting mode comprises receiving a user selection choosing either the multiple disc mounting mode or the single disc mounting mode **[this method element is inherently accomplished with the 'skip' function, see col. 9, lines 26 – 46]**

Regarding claim 23, Hoshino teaches:

- The method according to claim 21, further comprising:

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- when it is determined that the disc mounting mode is the multiple disc mounting mode, searching for at least two of the multiple successive, empty disc mounting recesses **[this method element is inherently accomplished with the ‘skip’ function, see col. 9, lines 26 – 46]**

Regarding claim 24, Hoshino teaches:

- The method according to claim 23, comprising:
- selecting the at least two of the multiple successive, empty disc mounting recesses **[this method element is inherently accomplished with the ‘skip’ function, see col. 9, lines 26 – 46]**
- and exposing the at least two of the multiple successive, empty disc mounting recesses **[fig. 15]**.

Regarding claim 25, Hoshino teaches:

- The method according to claim 24,
- wherein if only one empty disc mounting recess is found, further comprising: selecting the one empty disc mounting recess and at least one adjacent disc mounting recess **[this method element is inherently accomplished with the ‘skip’ function, see col. 9, lines 26 – 46]** and
- exposing the one empty disc mounting recess and the at least one adjacent disc mounting recess **[this method element is inherently accomplished with the ‘skip’ function, see col. 9, lines 26 – 46]**

Regarding claim 26, Hoshino teaches:

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- The method according to claim 24, wherein if no empty disc mounting recesses are found, further comprising:
- selecting at least two successive disc mounting recesses **[this method element is inherently accomplished with the 'skip' function, see col. 9, lines 26 – 46]** and
- exposing the at least two successive disc mounting recesses **[fig. 15]**.

Regarding claim 27, Hoshino teaches:

- The method according to claim 21,
- further comprising, when it is determined that the disc mounting mode is the single disc mounting mode, searching for one empty disc mounting recess **[this method element is inherently accomplished with the 'skip' function, see col. 9, lines 26 – 46]**.

Regarding claim 28, Hoshino teaches:

- The method according to claim 27,
- further comprising: selecting the one empty disc mounting recess **[this method element is inherently accomplished with the 'skip' function, see col. 9, lines 26 – 46]**;
- and exposing the one empty disc mounting recess **[fig. 13]**.

Regarding claim 29, Hoshino teaches:

- The method according to claim 27,
- wherein if no empty disc mounting recess is found, further comprising: selecting a disc mounting recess; and exposing the disc mounting recess

[this method element is inherently accomplished with the 'skip' function, see col. 9, lines 26 – 46, also see fig. 13].

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 – 5 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryu [US PG PUB 2004/0120226].

Regarding claim 4, Salto teaches:

- A method of reproducing data on discs in an optical disc changer which is suitable for a tray open mode that enables two discs to be mounted simultaneously **[fig. 14, note that the exposed recesses are successive and empty and can be loaded simultaneously]**, the method comprising:
- determining whether discs are mounted on pre-selected successive, empty disc mounting recesses **[26, see col. 7, lines 16 – 29, note that since every recess is checked, this will inherently be known];**

However, Salto does not teach:

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- reproducing a first disc having higher priority when a condition in which discs are mounted on the pre-selected successive, empty disc mounting recesses is determined to be in effect;
- reproducing a second disc when the reproduction of the first disc is completed.

Ryu does teach:

- reproducing a first disc having higher priority when a condition in which discs are mounted on the pre-selected successive, empty disc mounting recesses is determined to be in effect **[claim 18, note that the disc order in the tray determines priority, so this 'condition' is always in effect];**
- reproducing a second disc when the reproduction of the first disc is completed **[claim 18]**.

Regarding claim 5, Ryu also teaches:

- wherein if only one of the selected successive, empty disc mounting recesses has a disc mounted thereon, the mounted disc only is reproduced **[\$0002, also note that players inherently can not reproduce any recess that lacks an information medium]**.

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the method taught by Salto with the disc playback priority taught by Ryu because it has the predictable result of allowing continuous playback of multiple discs in a predetermined order of playback [Ryu, abstract]

Regarding claim 18, Salto teaches:

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- A method of reproducing data on discs in an optical disc changer in which multiple discs are mounted on a roulette wheel of the changer, priority is established among the disks, and a multiple disc mounting mode has been initiated, the method comprising:
- determining whether the discs are mounted on-the successive, empty disc mounting recesses which are selected when the multiple disc mounting mode has been initiated **[26, note that the detection is immediate and in effect before mounting mode can be initiated, also note that this method element is inherently accomplished with the 'skip' function, see col. 5, lines 5 – 9];**

However, Salto does not teach:

- reproducing a first disc having high priority, if discs are mounted on the selected successive, empty disc mounting recesses; and
- automatically reproducing a second high priority disc when the reproduction of the first disc is completed, wherein if one of the two successive, empty disc mounting recesses does not have a disc mounted thereon then only the mounted disc is reproduced.

Ryu does teach:

- reproducing a first disc having high priority, if discs are mounted on the selected successive, empty disc mounting recesses **[claim 18]** and
- automatically reproducing a second high priority disc when the reproduction of the first disc is completed **[claim 18]**,

- wherein if one of the two successive, empty disc mounting recesses does not have a disc mounted thereon then only the mounted disc is reproduced **[\$0002, also note that players inherently can not reproduce any recess that lacks an information medium]**.

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the method taught by Salto with the disc playback priority taught by Ryu because it has the predictable result of allowing continuous playback of multiple discs in a predetermined order of playback [Ryu, abstract]

Response to Arguments

1. Applicant's arguments, see pg. 8, filed 10/7/2008, with respect to the objection of claim 19 have been fully considered and are persuasive. The objection of claim 19 has been withdrawn.
2. Applicant's arguments, see pg. 8 - 9, filed 10/7/2008, with respect to the 112 2nd rejections of claims 2 – 3 and 9 - 13 have been fully considered and are persuasive. The rejections of claims 2 – 3 and 9 - 13 have been withdrawn.
3. Applicant's arguments with respect to claims 1 - 20 have been considered but are moot in view of the new ground(s) of rejection.
4. Addition of claims 21 – 29 has been noted.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW J. SASINOWSKI whose telephone number is (571)270-5883. The examiner can normally be reached on Monday to Friday, 7:30 to 5:00, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on (571)272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AJS

/HOA T NGUYEN/

Supervisory Patent Examiner, Art Unit 2627